



# Engineering Class Assistant Using Moodle Open Source

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## Abstract

Over the years, faculty members seek for more efficient and productive approach in developing and promoting engineering profession. This research aims at utilizing existing tools or technologies in the development of a dynamic course management system that will not only improve faculty/students interactive sessions, but also will initiate a self-paced learning environment that is accessible and available to students.

## Introduction

Engineering Class Assistant is a customized online application based on Moodle Open Source Learning Management System. It is integrated with learning activities and resources that are assembled together to provide richly structured academic course contents and accompanying assessment system that are made available to students at their self-study pace.

## Selection Methods

### • Benefit Segmentation

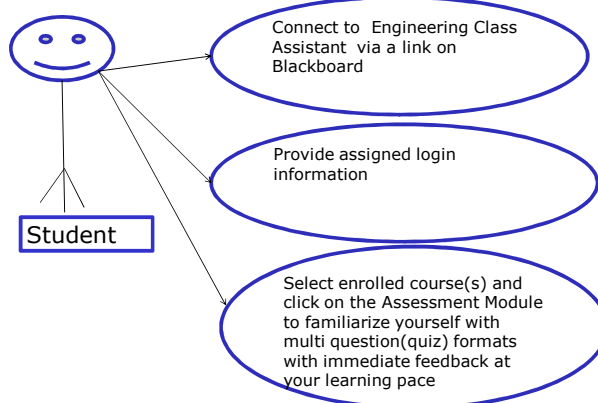
A result-oriented set of learning activities is what instructors need in order to deliver relevant contents that are tailored towards students' knowledge acquisition and sharing.

Moodle Open Source system is designed and implemented on the principle of learning through interaction with immediate environment, and sharing of knowledge in order to improve learning efforts and promote any profession in a hybrid learning manner. It is also comparatively affordable, therefore reducing costs significantly.

### •Expert Evaluation

Moodle Open Source is a scalable and layered architecture comprising presentation, business, and data layers, which makes it easily extensible, upgradable, and supportable. It is also used and maintained by vast majority of users and developers across the globe.

## Procedures



## System Components

Customized Moodle Application – Engineering Class Assistant	Apache Web Server
MySQL Database Server	Php Server Scripting

## Figures

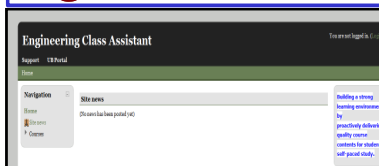


Fig 1. Index Page Before Login

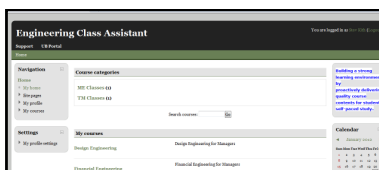


Fig 2. User Page After Login

## Results

Reduced costs, engineering profession awareness, promotion, availability, and adaptability.

## Conclusion

The Engineering Class Assistant when hosted on a live production server with Domain Name Server(DNS) – remotely hosted or dedicated - will be available to enrolled students at their self-learning pace and convenient schedules.